Event

MPTS IJET FAM 4101 – FAM 4103 T-45

Mission

FAMILIARIZATION

1.3 HOURS/X

ORM

FAM 4101-03

- **OPERATIONAL REQUIREMENTS / LIMITATIONS**
  - **CREW REST/ CREW DAY / WORK WEEK**
  - **WARM-UP ELIGIBILITY**
  - **PREVIOUS FLIGHT COMPLETE?**
  - **IP CURRENCY**
  - **READ AND INITIAL**

- **HUMAN FACTORS**
  - **LIFE STRESSORS / EXTERNAL FACTORS/ PERSONAL PROBLEMS**
  - **MEDICAL STATUS**
    - **CREW DAY**
    - **CREW REST**
    - **NOURISHMENT**
    - **HYDRATION**

- **HAZARDS AND CONTROLS**
  - **ROUTINE**
  - **WEATHER**
    - **CURRENT OBSERVATIONS AND FORECASTS**
    - **CROSSWINDS**
    - **FUEL CONSIDERATIONS**

TTO

FAM 4101-03

- **WHO WILL CALL A TTO?**

- **WHAT SITUATIONS WILL THE TTO BE CALLED?**
  - **SAFETY**
  - **CONFUSION**
  - **MISUNDERSTANDING**

- **IP RESPONSIBILITIES**
  - **RECOGNIZE THE NEED FOR A TTO**
  - **EXPLANATION / INSTRUCTION AS NECESSARY**
  - **DOCUMENTATION ON ATF**

- **WHEN AND HOW WILL TRAINING RESUME?**

SSR/DISCUSS ITEMS

FAM 4101-03

- **SPECIAL SYLLABUS REQUIRMENTS:**
  - **DURING FAM 4101, IP SHALL DEMO AIRCRAFT EXTERIOR PRE-FLIGHT, AREA FAMILIARIZATION, ABEAM PA, POST FLIGHT AIRCRAFT INSPECTION, AND SIMULATED SHORT-FIELD ARRESTMENT (DIRECTIONAL CONTROL IN QUESTION) IN FULL-FLAP CONFIGURATION TO AVOID AIRCRAFT OVERSTRESS.**

- **PREREQUISITES:**
  - **FAM 3204**
  - **RI 3204**

- **DISCUSS ITEMS:**

  FAM 4101
  - **NATOPS/SOP/EP QOD, ENGINE SURGE/COMPRESSOR STALL, CROSSWIND LANDING TECHNIQUE, AND INADVERTENT ENGINE SHUTDOWN (FINGER LIFTS).**

  FAM 4102
  - **NATOPS/SOP/EP QOD, ENGINE SURGE/COMPRESSOR STALL, AND PA CONFIGURATION MANAGEMENT.**

  FAM 4103
  - **NATOPS/SOP/EP QOD, AND SHORT- FIELD ARRESTMENT PROCEDURES.**

DISCUSS

FAM 4101-03

GO-AROUND

- **HISTORY: REFER TO VT-22 SIR, JUNE 2010**

- **JOINT SOP: AT ANY TIME IF THE AIRCRAFT IS NOT DECELERATING NORMALLY WITH 3000 FEET OF RUNWAY REMAINING, A GO-AROUND OR LONG FIELD ARRESTMENT DECISION MUST BE MADE**
  - **NOTE: WHILE THE FAM FTI CAUTIONS AGAINST ROLL BEYOND 4000 FT REMAINING MARKER (DURING ROLL AND GO), SNAs SHOULD UNDERSTAND THAT GO AROUND IS POSSIBLE WITH LESS RUNWAY**

- **IPs MUST ENSURE STUDENTS ARE AWARE OF T-45C SHORT-FIELD TAKEOFF PERFORMANCE. DISCUSS FOLLOWING:**
  - **LINE SPEEDS DURING LANDING ROLL**
  - **GO-AROUND ROTATION SPEED (V liftoff: 99 KIAS)**
  - **GO-AROUND AOA (19.5 UNITS)**
  - **L/Dmax (24 UNITS)**
  - **TAKEOFF ROLL (LESS THAN 2000’ AT 11,000 lbs)**

SYLLABUS NOTES

FAM 4101-03

A. **BRIEF 2 + 00 HOURS PRIOR TO TAKEOFF FOR FAM 4101**

B. **WALK 45 MINUTES PRIOR TO TAKEOFF FOR ALL FLIGHTS IN FAM 41 BLOCK.**

C. **FLY EVENTS FROM THE FRONT COCKPIT.**

D. **THE STUDENT WILL PERFORM THE FOLLOWING MANEUVERS IAW FTI, NATOPS, AND SOP ON THE INDICATED EVENT:**

- **FAM 4102: OVERHEAD RECOVERY (BREAK), AND ABEAM PA.**
- **FAM 4103: PRECAUTIONARY APPROACH (STRAIGHT-IN, OVERHEAD, OR ABEAM), AND SIMULATED SHORT-FIELD ARRESTMENT (DIRECTIONAL CONTROL IN QUESTION) IN FULL-FLAP CONFIGURATION TO AVOID OVERSTRESS.**

E. **STUDENT SHALL PERFORM A FULL-STOP LANDING WITH ROLL-OUT TO THE END OF THE RUNWAY ON TWO SEPARATE EVENTS WITHIN FAM41 THROUGH FAM43 BLOCKS PRIOR TO FAM4490.**

ADMIN (CARD)

FAM 4101-03

- **A/C – ATC C/S – CREW**
- **BRIEF / WALK / TAKEOFF / LAND TIMES**
- **ATC CLEARANCE / DD-175**
- **FUEL PLAN/LADDER**
- **LINE / T/O / ABORT / RPM**
- **COMM PLAN**
- **NAV PLAN**

ADMIN

FAM 4101-03

- **LAUNCH**
  - **WEATHER / NOTAMS / TFR / BASH**
  - **PREFLIGHT / START / TAXI**
  - **ITO**
  - **SWAPPING OF CONTROLS**
  - **ENROUTE PROCEDURES**
  - **RADALT USAGE**

- **RTB**
  - **RECOVERY**
  - **DIVERTS**

CONDUCT

FAM 4101-03

- **TIMS RESUME REVIEW**
- **PRACTICE:**
  - **CHECKLISTS/COMM/GROUND OPS**
  - **TAKEOFF/DEPARTURE/FLIGHT ADMIN**
  - **DEPARTURE PROCEDURE**
  - **COURSE RULES**
  - **AREA FAM**
  - **TURN PATTERN**
  - **SLOW FLIGHT MANEUVER**
  - **ACCELERATED STALL**
  - **BREAK TURN STALL**
  - **POWER OFF STALL**
  - **LANDING ATTITUDE MANEUVER**
  - **LANDING ATTITUDE STALL**
  - **APPROACH TURN STALL**
  - **VERTICAL RECOVERY**
  - **MIN RADIUS TURN**
  - **AILERON ROLL**
  - **WINGOVER**

CONDUCT

FAM 4101-03

- **PRACTICE CONTINUED:**
  - **BARREL ROLL**
  - **UNUSUAL ATTITUDE RECOVERY**
  - **DESCENT/ FIELD ENTRY**
  - **PRECAUTIONARY APPROACH(ES)**
  - **VFR LANDING PATTERNFIELD CARRIER LANDING**
  - **FF ROLL-AND-GO**
  - **CROSSWIND LANDINGS**
  - **WAVEOFF**
  - **FULL STOP LANDING**

DID YOU KNOW?

• A HOT START (EGT IS EXCESSIVE), A HUNG START (FAILURE TO ACCELERATE FROM 45% TO IDLING CONDITIONS), A WET START (NO LIGHT OF WITHING 15 SECONDS FROM MOVING THE THROTTLE TO IDLE), OR A TAILPIPE FIRE IS INDICATED – YOU SHALL EXECUTE THE CLEAR ENGINE PROCEDURE.

•WHEN EXCESSIVE BRAKING HAS OCCURRED (SUCH AS AFTER AN ABORTED TAKEOFF), THE TIME TO REACH PEACK TEMPERATURE MAY EXCEED 25 MINUTES AND WE SHALL NOT SET THE PARKING BRAKE.

•PRIOR TO ENGINE START, ENSURE THE FUEL CONTROL SW IS IN

CONDUCT

FAM 4101-03

- **RECOMMENDED FLOW**

FAM 4101:

A. GROUND OPS
- **1) IP DEMONSTRATES PREFLIGHT (IAW SSR)**

B. AREA WORK
- **1) IP CONDUCTS AREA FAM (IAW SSR)**
- **2) SNA PERFORMS THE FOLLOWING MANEUVERS:**
  - **TURN PATTERN**
  - **BREAK TURN STALL**
  - **POWER OFF STALL**
  - **SLOW FLIGHT MANEUVER**
  - **LAM, LAS, ATS**
  - **MIN RADIUS TURN**

C. PATTERN (USE NJW, IF POSSIBLE)
- **1) IP DEMONSTRATES A STRAIGHT-IN PA FROM THE AREA**
- **2) IP DEMONSTRATES LANDING PATTERN**
- **3) SNA FLIES PATTERN**
- **4) IP DEMONSTRATES FLY-IN ARRESTMENT (DIRECTIONAL CONTROL IN QUESTION) (IAW SSR)**
- **5) IP DEMONSTRATES ABEAM PA (IAW SSR)**
- **6) RTB TO NMM FROM NJW (AT 900 LBS)**
- **7) IP DEMONSTRATES OVERHEAD**
- **8) AT NMM: SNA FLIES PATTERN UNTIL 400-500 LBS**

D. GROUND OPS
- **1) IP DEMONSTRATES POST FLIGHT (IAW SSR)**

CONDUCT

FAM 4101-03

- **RECOMMENDED FLOW**

FAM 4102:

A. GROUND OPS
- **1) SNA PERFORMS PREFLIGHT (REQUIRED FROM THIS FLIGHT TO END OF SYLLABUS)**

B. AREA WORK
- **1) SNA PERFORMS FOLLOWING MANEUVERS:**
  - **VERTICAL RECOVERY**
  - **ACCELERATED STALL**
  - **AILERON ROLL**
  - **WINGOVER**
  - **BARREL ROLL**
  - **MIN RADIUS TURN**
  - **UA RECOVERIES**
  - **BREAK TURN STALL**
  - **LAM, LAS, ATS**

C. PATTERN WORK (USE NJW, IF POSSIBLE)
- **1) SNA FLIES OVERHEAD**
- **2) SNA FLIES MULITPLE PASSES IN PATTERN**
- **3) SNA COMPLETES ABEAM PA**
- **4) SNA COMPLETES FF ROLL AND GO**
- **5) RTB TO NMM FROM NJW (AT 900 LBS)**
- **6) AT NMM: SNA FLIES PATTERN UNTIL 400-500 LBS**

D. GROUND OPS
- **1) SHUTDOWN: SIMULATED TAILPIPE FIRE (REQUIRING SNA TO PERFORM CLEAR ENGINE)**
- **2) SNA COMPLETES POSTFLIGHT INSPECTION**

CONDUCT

FAM 4101-03

- **RECOMMENDED FLOW**

FAM 4103:

A. GROUND OPS
- **1) SNA PERFORMS PREFLIGHT**

B. AREA WORK
- **1) SNA PERFORMS FOLLOWING MANEUVERS:**
  - **VERTICAL RECOVERY**
  - **ACCELERATED STALL**
  - **WINGOVER**
  - **BARREL ROLL**
  - **MIN RADIUS TURN**
  - **UA RECOVERIES**
  - **BREAK TURN STALL**
  - **LAM, LAS, ATS**

C. PATTERN WORK (USE NJW, IF POSSIBLE)
- **1) SNA FLIES OVERHEAD PA**
- **2) SNA FLIES MULITPLE PASSES IN PATTERN**
- **3) SNA COMPLETES SEVERAL ABEAM PAs, IF POSSIBLE**
- **4) SNA FLIES SIMULATED SHORT FIELD ARRESTMENT (DIRECTIONAL CONTROL IN QUESTION)**
- **5) RTB TO NMM FROM NJW (AT 900 LBS)**
- **6) AT NMM: SNA FLIES PATTERN UNTIL 400-500 LBS**

D. GROUND OPS
- **1) SHUTDOWN: SIMULATED TAILPIPE FIRE (REQUIRING SNA TO PERFORM CLEAR ENGINE)**
- **2) SNA COMPLETES POSTFLIGHT INSPECTION**

BLOCK MIF

FAM 4101-03

CTS REF	MANEUVER	FAM4103
1	General Knowledge/Procedures	3+
2	Emergency Procedures	3+
3	Headwork/Situational Awareness	2+
4	Basic Airwork	3+
5	Mission Planning/Briefing/ Debriefing	3+
6	Communications	3+
7	Ground Operations	3+
8	Flight Admin	2+
10	Takeoff	3+
11	Departure Procedure	3+
8	Course Rules	2+
8	Area Fam	1+
25	Turn Pattern	4+
25	Slow Flight Maneuver	4+
29	Accelerated Stall	3+
29	Break Turn Stall	3+
29	Power Off Stall	3+
29	Landing Attitude Maneuver	4+
29	Landing Attitude Stall	3+
29	Approach Turn Stall	3+
26	Vertical Recovery	3+
26	Min Radius Turn	3+
27	Aileron Roll	3+
27	Wingover	3+

CTS REF	MANEUVER	FAM4103
27	Barrel Roll	3+
28	Unusual Attitude Recovery	3+
13	Descent/Field Entry	3+
21	Precautionary Approach(es)	2+
22	VFR Landing Pattern	2+
23	Field Carrier Landing	2+
23	FF Roll-and-Go	3+
23	Crosswind Landings	2
24	Waveoff	3+
23	Full-Stop Landing	3+
	Special Syllabus Requirements	1

Emergencies

FAM 4101-03

- **AIRCRAFT FALLOUT**
- **CLEAR ENGINE PROCEDURE**
- **ABORTED TAKEOFF**
- **RWY DEP / LOSS OF DIRECTIONAL CONTROL**
- **SYSTEM FAILURES/ EPs / CRM**
- **BIRD STRIKE/ MIDAIR**
- **RADIO/ ICS FAILURE**
- **LOSS OF NAVAIDS / LOST PLANE**
- **INADVERTENT IMC / LOST SIGHT / LCLS**
- **DISORIENTATION / VERTIGO**
- **HYPOXIA**
- **EJECTION (HIGH / LOW / GROUND)**
- **SAR / ON SCENE COMMANDER**
- **DIVERT(S) / BINGO FUEL TO DIVERT**

STANDARD DEBRIEFING FORMAT

FAM 4101-03

- THE FLIGHT LEAD OR PILOT-IN-COMMAND IS RESPONSIBLE FOR ENSURING ALL FLIGHT OR CREWMEMBERS ARE THOUROUGHLY DEBRIEFED ON THE CONDUCT OF THE MISSION UTILIZING THE "S-P-B-E-MS-LL" FORMAT OUTLINED BELOW.

I. SAFETY
II. PLANNING
III. BRIEF
IV. EXECUTION
V. MISSION SUCCESS
VI. LESSONS LEARNED